UNITED STATES PATENT AND TRADEMARK OFFICE

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10/772,223	02/03/2004	Kenji Ishii	9683/165	2202

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EXAMINER
BATURAY, ALICIA

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 June 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-12_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-12_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _03 February 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is in response to the amendment filed 16 June 2008.

2.   Claims 1, 4 and 12 were amended.

3.   Claims 1-12 are pending in this Office Action.

Response to Arguments

4.   The objection to claim 12 regarding minor informalities was addressed and is withdrawn.

5.   Applicant's arguments filed 16 June 2008 have been fully considered, but they are not persuasive for the reasons set forth below.

6.   ***Applicant Argues:*** The cited art fails to teach or suggest analyzing the status of both node functions and link resources in a network, and relocating/restructuring of the node functions/link resources based on the analyzed status. For example, the Nguyen reference fails to teach or even suggest several limitations in claim 1, including "the node function controlling unit" and the "adaptive control determining unit."

In Response: The examiner respectfully submits that Nguyen teaches analyzing the status of both node functions (data collected includes network faults, which include the up/down indications of network elements and various error conditions of such network elements) and link resources (network traffic statistics preferably include usage on each communication link – see Nguyen, page 18, line 19 – page 19, line 11) in a network, and

relocating/restructuring of the node functions/link resources based on the analyzed status (if one or more errors or congestion events are detected...following such detection a messaging step is performed which sends an activation message to Analysis Engine. Analysis Engine retrieves data necessary for analysis from Data Store. The retrieved data is used in the next step of problem formulations. This entails the formulation of the routing optimization problem. The next step is the step of problem solving which formulates an optimized routing solution. Following this step...a step of messaging to Configuration Engine is performed. Configuration Engine retrieves both the current solution and the new solution from Data Store. The next step determines the optimal change sequences, which calculates the changes as to ensure minimal impact to existing traffic. The difference between the solution reroute and the original routing shows two changes...must be made to the network routing configuration. Configuration Process makes the changes to the elements in Network, to affect the routing of various demands in Network – see Nguyen, page 21, line 9 – page 26, line 19).

Additionally, Nguyen teaches a node function location controlling unit for relocating functions of functional nodes and data used for the functions in said network into an optimum condition (if one or more errors or congestion events are detected...following such detection a messaging step is performed which sends an activation message to Analysis Engine. Analysis Engine retrieves data necessary for analysis from Data Store. The retrieved data is used in the next step of problem formulations. This entails the formulation of the routing optimization problem. The next step is the step of problem solving which formulates an optimized routing solution. Following this step...a step of messaging to Configuration Engine is performed. Configuration Engine retrieves both the current solution and the new

solution from Data Store. The next step determines the optimal change sequences, which calculates the changes as to ensure minimal impact to existing traffic. The difference between the solution reroute and the original routing shows two changes…must be made to the network routing configuration. Configuration Process makes the changes to the elements in Network, to affect the routing of various demands in Network – see Nguyen, page 21, line 9 – page 26, line 19), in accordance with said statuses of node resources which are managed by said resource managing unit (data collected includes network faults, which include the up/down indications of network elements and various error conditions of such network elements – Nguyen, page 18, line 19 – page 19, line 11), in response to an instruction of relocation (therefore it is more efficient and produces less network impact on the network if Demand 3 is rerouted first to path A-B-C-D-E. Following Demand 2 can be rerouted to path A-B-D-E. Configuration Process makes the changes in the elements in Network, to affect the routing of various demands in Network – see Nguyen, page 26, line 20 - page 27, line 15).

Finally, Nguyen teaches an adaptive control determining unit for determining whether or not it is necessary to transmit either or both of said instruction of relocation to said node function location controlling unit and said instruction of restructuring to said path structure controlling unit on the basis of said statuses of node resources and said statuses of link resources which are managed by said resource managing unit (Analysis Engine retrieves data necessary for analysis from Data Store. The retrieved data is used in the next step of problem formulations. This entails the formulation of the routing optimization problem. The next step is the step of problem solving which formulates an optimized routing solution. Following this step…a step of messaging to Configuration Engine is performed. Configuration Engine

retrieves both the current solution and the new solution from Data Store. The next step

determines the optimal change sequences, which calculates the changes as to ensure minimal

impact to existing traffic. The difference between the solution reroute and the original routing

shows two changes…must be made to the network routing configuration. Configuration

Process makes the changes to the elements in Network, to affect the routing of various

demands in Network – see Nguyen, page 22, line 3 – page 26, line 19), and transmitting said

instruction of relocation when the transmission of said instruction of relocation is determined

to be necessary or transmitting said instruction of restructuring when the transmission of said

instruction of restructuring is determined to be necessary (a step of messaging to

Configuration Engine is performed. Configuration Engine retrieves both the current solution

and the new solution from Data Store. The next step determines the optimal change

sequences, which calculates the changes as to ensure minimal impact to existing traffic. The

difference between the solution reroute and the original routing shows two changes…must be

made to the network routing configuration. Configuration Process makes the changes to the

elements in Network, to affect the routing of various demands in Network – see Nguyen,

page 24, line 16 – page 26, line 19). This renders the rejection proper, and thus the rejection

stands.

7.   *Applicant Argues:* The Nguyen reference fails to teach or suggest the capability of

locking network resources as recited in claim 9. Rather, the Nguyen reference merely teaches

that if "it is more efficient and produces less network impact on the network", than a resource

is not used. See page 26, lines 12-15. This is considerably different from locking the network resource (regardless of the efficiency or network impact).

In Response: The examiner respectfully submits that Nguyen teaches a lock controlling unit for controlling a lock of a certain resource, when said certain resource is controlled by a certain network structure controlling device to achieve a relocation of functions of nodes and data used for the functions in said network or to achieve a restructuring of a structure of paths in said network (Analysis Engine retrieves data necessary for analysis from Data Store. The retrieved data is used in the next step of problem formulations. This entails the formulation of the routing optimization problem. The next step is the step of problem solving which formulates an optimized routing solution. Following this step...a step of messaging to Configuration Engine is performed. Configuration Engine retrieves both the current solution and the new solution from Data Store. The next step determines the optimal change sequences, which calculates the changes as to ensure minimal impact to existing traffic. The difference between the solution reroute and the original routing shows two changes...must be made to the network routing configuration. Configuration Process makes the changes to the elements in Network, to affect the routing of various demands in Network – see Nguyen, page 22, line 3 – page 26, line 19), for avoiding said certain resource being controlled by another network structure controlling device, in response to a request for a lock control from said certain network structure controlling device (User Constraints include priority levels for customers, traffic and any user authorization for network configuration – see Nguyen, page 26, lines 1-19). Priority levels indicate that certain customers, traffic and any user

authorization for network configuration are given precedence in accessing system resources, and thus may prevent competing entities from accessing those resources currently under control. This renders the rejection proper, and thus the rejection stands.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9.   Claims 1-12 are rejected under 35 U.S.C. 102(a) as being anticipated by Nguyen (WO 02/29427).

10.   Only those claims that have been amended by Applicant or required a change in the grounds of rejection are formally addressed in this action. For those claims not formally addressed, the rejections have not been altered from what was set forth in previous actions. Therefore, the substance of these rejections for claims not formally addressed in this action can be found in prior Office Actions, see the Office Action dated 25 March 2008.

11.   With respect to claim 1, Nguyen teaches a communication network system comprising: a resource managing unit for managing statuses of node resources in a network and statuses of

link resources in said network (Nguyen, Fig. 3, elements 220 and 250; page 18, line 19 –

page 19, line 11), a node function location controlling unit for relocating functions of

functional nodes and data used for the functions in said network into an optimum condition

(Nguyen, page 21, line 9 – page 26, line 19), in accordance with said statuses of node

resources which are managed by said resource managing unit (Nguyen, page 18, line 19 –

page 19, line 11), in response to an instruction of relocation (Nguyen, page 26, line 20 - page

27, line 15), a path structure controlling unit for restructuring a structure of paths in said

network into an optimum condition, in accordance with said statuses of link resources which

are managed by said resource managing unit (Nguyen, page 20, line 18 – page 21, line 13), in

response to an instruction of restructuring (Nguyen, page 26, line 20 - page 27, line 15), and

an adaptive control determining unit for determining whether or not it is necessary to

transmit either or both of said instruction of relocation to said node function location

controlling unit and said instruction of restructuring to said path structure controlling unit on

the basis of said statuses of node resources and said statuses of link resources which are

managed by said resource managing unit (Nguyen, page 22, line 3 – page 26, line 19), and

transmitting said instruction of relocation when the transmission of said instruction of

relocation is determined to be necessary or transmitting said instruction of restructuring when

the transmission of said instruction of restructuring is determined to be necessary (Nguyen,

page 24, line 16 – page 26, line 19).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on (571) 272-6798. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be

obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
September 22, 2008

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2146